

AIR SYSTEMS

Rooftop

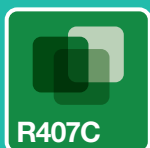
DIC-BIH-DIG 090 to 150 G



Rooftop

DIC-BIH-DIG

A complete range from 25.3 kW up to 40.2 kW



YKlon✓3

Features

- YKlon ✓3 board
- Duct work configuration side or down flow
- Cooling, heat pump and gas versions
- Auxiliary heating with electric heater or hot water coil as option
- Compact and with proven reliability
- Wide range of accessories
- Suitable for use in harsh climates
- New indoor motor power input

D 5 IC 150 G 50

Nomenclature

Voltage code:
50 = 400V / 3 + N / 50 Hz

Heating installed:
G = R407C

Capacity range:
150 = 150.000 Btu/h
1.000 Btu/h = 293 W

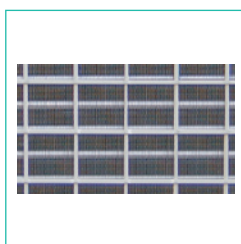
Product identification:
IC = Cooling only
IH = Heat pump
IG = Heat gas

Product generation:
5 = 5th generation

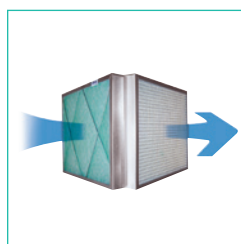
Product category:
D = Packaged air conditioner (air-cooled)
B = Heat pump



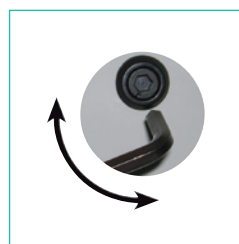
Johnson Controls participate to the Eurovent certification program for rooftop units



Coil guard



Removable media filter



1/4 turn lock



Scroll compressor models 150 to 300

Rooftop

DIC-BIH-DIG 090 to 150 G



Technical features

Cooling only models		D5IC 090G	D5IC 120G	D5IC 150G
Net cooling capacities (1)	kW	25.30	32.00	40.20
Power input (2)	kW	10.40	12.80	17.10
Heat pump models		B5IH 090G	B5IH 120G	B5IH 150G
Net cooling capacities (1)	kW	23.20	31.00	37.00
Power input in cooling (2)	kW	9.79	12.80	15.00
Heating capacities	kW	24.30	32.30	37.7
Power input in heating	kW	8.21	10.40	14.7
Cooling only + Gas heating		D5IG 090G	D5IG 120G	D5IG 150G
Net cooling capacities (1)	kW	25.30	32.00	40.20
Cooling power input (2)	kW	10.40	12.80	17.10
Standard Heating capacities (3)	kW	47.5 + 1.5	57 + 2.2	57 + 4
Natural gas 2ND-H, G20	m³/h	5.4	6.5	6.5
Common characteristics				
Power supply		400V/3 + N/ 50Hz		
Main switch (4)	A	32	32	50
Main cable (4)	Nbr. x mm²	5 x 4	5 x 6	5 x 10
Cable to thermostat (6)	Nbr. x mm²	10 x 0,22		
Number of circuits / Compressor type		2 x reciprocating		2 x scroll
Thermostat (to be ordered separately)		DPC-1		
Technical characteristics for D5IC and D5IG				
Ambient outdoor side sound power level	dB(A)	87	87	88
Ambient outdoor side sound pressure level at 5 m	dB(A)	59	59	61
In duct indoor side sound power level	dB(A)	81	83	84
Nominal / Starting current	A	19.9 / 76	24.3 / 83	32 / 99
Evaporator fan at nominal airflow (5)	Airflow	m³/h	5 100	8 640
	Standard ESP	Pa	330	183
	ESP with HSD	Pa	Consult us	>450
	Power input	kW	2.2	3
	Drive		Pulley-belts (6-turn adjustable pulley)	
Nett dimensions	Height	mm	855	1 210
	Length	mm	2 552	2 552
	Depth	mm	1 800	1 800
Nett weight DIC / DIG		kg	437 / 472	472 / 537
Technical characteristics for B5IH				
Ambient outdoor side sound power level	dB(A)	83	83	83
Ambient outdoor side sound pressure level at 5 m	dB(A)	60	60	61
In duct indoor side sound power level	dB(A)	79	79	79
Nominal / Starting current	A	19.9 / 76	24.3 / 83	32 / 101
Evaporator fan at nominal airflow	Airflow	m³/h	5 100	8 640
	Standard ESP	Pa	275	300
	ESP with HSD	Pa	Consult us	>450
	Power input	kW	2.2	3
	Drive		Pulley-belts (6 turn adjustable pulley)	
Nett dimensions	Height	mm	855	1 210
	Length	mm	2 552	2 552
	Depth	mm	1 800	1 800
Nett weight BIH		kg	477	637

(1) Add evaporator fan motor input to get Gross capacity

(2) including evaporator fan motor

(3) net heating capacity + indoor fan power input

(4) For information only. They should be checked to comply local norms and regulations depending also on installation and conductor type

(5) ESP = External static pressure HSD = High speed drive

(6) Shield type cable only

(*) : Indoor air flow should be set at least at 10.000 m3/h

All data are at Eurovent conditions

Codes

Cooling only models	D5IC 090 G50	D5IC 120 G50	D5IC 150 G50
	S661750903	S661751203	S661751503
Heat pump models	B5IH 090 G50	B5IH 120 G50	B5IH 150 G50
	S661940903	S661941203	S661941503
Cooling only + gas models	D5IG 090 G16550	D5IG 120 G20050	D5IG 150 G20050
	S661760903	S661761203	S661761503
Thermostat to be ordered separately		DPC-1	

Accessories & options

Accessories & options

	Code	Cooling only		
		D5IC 90	D5IC 120	D5IC 150
Thermostat DPC-1	S603786044	A	A	A
YKlon FT10 for BMS communication (LonWorks)	S606791211	O/A	O/A	O/A
YKphone 485, computer cable and transformer	S613786017	A	A	A
Budi board for YKphone 485	S606791239	A	A	A
Dry bulb triple input economizer or motorized air damper with rain hood	S613991582	O	O	O
Enthalpy probes *	S613990081	O	O	O
Indoor air quality sensor *	S606819964	O	O	O
Power Exhaust *	S613994582	A	A	A
Fresh air or barometric damper and rain hood (2)	S613990483	A	A	A
Soft start for indoor fan motor	S606744690	O	O	O
High speed drive	S611991281		O	
	S611991581			O
Low ambient control	S613190150	O	O	O
Fixed roof curb **	S613991881	A	A	A
Adjustable roof curb **	S613992080	A	A	A
Filter dirty switch	S613990084	O	O	O
Smoke detector ***	S613995381	O	O	O
Fire detection thermostat	S613903002	O	O	O
Hot water coil with control	S611083551	O		
	S611083151		O	O
Electric heaters	16 kW	S611761582	O	O
	25 kW	S611762282	O	O
	37 kW	S611763382	O	O
Propane conversion Kit	S611801780			
G4 air Filter (1)	S611300980	A		
	S611301281		A	
	S611301580			A
Copper-copper coil	Contact us	O	O	O
Blue fin	Contact us	O	O	O

O = Option (factory fitted) A = Accessory (supplied loose)

* It is mandatory to order the economizer with this item ** Delivered in kit form

*** For multiple units, consult Johnson Controls office

(1) Removable media G3 filter as standard

(2) Fresh air damper can not be installed if economizer or motorized damper is fitted



Accessories & options

	Code	Heat pump			Cooling and gas		
		B5IH 90	B5IH 120	B5IH 150	D5IG 90	D5IG 120	D5IG 150
Thermostat DPC-1	S603786044	A	A	A	A	A	A
YKlon FT10 for BMS communication (LonWorks)	S606791211	O/A	O/A	O/A	O/A	O/A	O/A
YKphone 485, computer cable and transformer	S613786017	A	A	A	A	A	A
Budi board for YKphone 485	S606791239	A	A	A	A	A	A
Dry bulb triple input economizer or motorized air damper with rain hood	S613991582	O	O	O	O	O	O
Enthalpy probes *	S613990081	O	O	O	O	O	O
Indoor air quality sensor *	S606819964	O	O	O	O	O	O
Power Exhaust *	S613994582	A	A	A	A	A	A
Fresh air or barometric damper and rain hood (2)	S613990483	A	A	A	A	A	A
Soft start for indoor fan motor	S606744690	O	O	O	O	O	O
High speed drive	S611991281		O			O	
	S611991581			O			O
Low ambient control	S613190150	O	O	O	O	O	O
Fixed roof curb **	S613991881	A	A	A	A	A	A
Adjustable roof curb **	S613992080	A	A	A	A	A	A
Filter dirty switch	S613990084	O	O	O	O	O	O
Smoke detector ***	S613995381	O	O	O	O	O	O
Fire detection thermostat	S613903002	O	O	O	O	O	O
Hot water coil with control	S611083551	O					
	S611083151		O	O			
Electric heaters	16 kW	S611761582	O	O	O		
	25 kW	S611762282	O	O	O		
	37 kW	S611763382		O	O		
Propane conversion Kit	S611801780				A	A	A
G4 air Filter (1)	S611300980	A			A		
	S611301281					A	
	S611301580		A	A			A
Copper-copper coil	Contact us	O	O	O	O	O	O
Blue fin	Contact us	O	O	O	O	O	O

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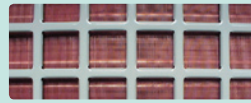
(2) Fresh air damper can not be installed if economizer or motorized damper is fitted

Design Details



Cabinet features

- Build to last, all cabinet with heavy gauge galvanized steel and powder paint backed on oven.
- Copper-copper coils or blue fin delivered upon request.
- Side or bottom duct connections to be realized on site. No additional parts needed.
- Excellent water-tightness even with high internal negative pressure.
- External slopes to remove rain water.
- Only 4 solid points to crane.



Copper-copper coil

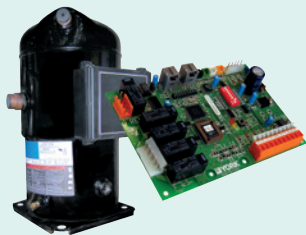


Blue fin



Designed to service

- Quick and easy access to all components.
- Doors equipped with hinges and 1/4 turn lock.
- Service valves.
- Inspection window for sight glass.
- Internal drain pan slope to remove drain water.
- YKtool for comissioning, monitoring and controlling unit parameters.



Electrical features

- YKlon V3 regulation and control.
- Vertical hermetic scroll compressor, with compressor module and crankcase heater.
- Smooth start indoor fan.
- Phase detector.
- Main power switch.
- Numbered wires in cable trunking.
- Motor protection.

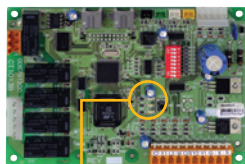


Quality and ELT

Design, built and tested under ISO9001 quality system certification, we are constantly listening to customer comments. For this reason, our End of Line Test ELT strives to be as close as possible to the commissioning you carry out on site.

Control System

YKlon✓3 and YKlonFT10



Led Diagnostic Code

The YKlon is a controller regulating all components and accessories. It will pro actively manage cool and heat stages to maintain a stable room temperature. Additionally, the benefits are:

- Redundancy on cool and heat stages (if one step is locked out, the PCB starts another one automatically).
- Random start between units to minimise electrical tariff.
- All stages will start in sequence to reduce peak inrush.
- Reduces nuisance calls by using 3 times "you are out" on all safeties before a hard lockout occurs.
- Automatic restart after power failure. Compressors run time priority.
- Alarm output relay and led diagnostic code. No parameters to check before starting.
- Lockout and incident level of protection. Last 10 lockouts stored in a non-volatile memory.
- Use a standard 2-stage thermostat but get 98% of YKlon features.
- 4 heating stages on hot water heating.
- YKlonFT10: Same as YKlonV3 with BMS connection (LonWorks).



YKphone485

The YKphone485 is a complete communication pack that YORK can offer in order to provide a local network between units. Without any specific communication protocol knowledge, you can download the software and have a direct access to the units, change thermostat parameters, reset lockout, etc.... For more detail, see the following pages or contact your local agency.



YKtool

The Yktool is the perfect tool to use on a regular basis for comissioning and service on site. For comissioning, it will override the thermostat and start the cooling or heating stages. Being a plug and play device, you will have direct access to all sensors and status of each components and accessories installed (lockout & incidents, temperatures, defrost test...).



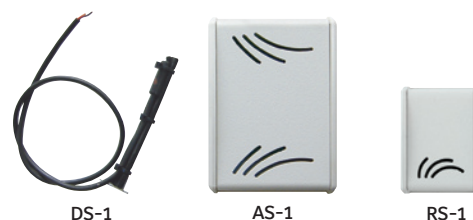
Features and benefits Thermostat DPC-1

- Day (normal), night (economy) and unoccupied (stand by).
- Lockout code on screen gives direct diagnostics.
- ON/OFF or programmable from dip switch setting.
- Day or night programmable state avoids wide internal temperature variation.
- 3 preset and 3 programmable profiles.
- Temperature override.
- Select the control sensor you want to use (integrated in the thermostat, return air in duct or room sensor).
- Turbo, normal or economy logic from dip switch setting.
- From -3°C to +3°C sensor offset.
- Average temperature with room or duct sensors.

Thermostats with integrated sensors

Thermostat models		DPC-1	DPC-1R
	Code	S603786044	S603786045
Roomtop	RTC and RTH	X	0
Rooftop	All models	X (1)	0
Split system	VAC and VAH	X	0
	VCH	X	0
Main features			
Strategy		Turbo, normal or economy	
Auto restart after power failure		•	•
Number of cool stages		2	1 2
Number of heat stages		2	1 2
Auxiliary Heat		•	•
Automatic Heat/Cool change over		•	•
Continuous or auto indoor fan		•	•
Manual setback (Day/Night key)		Day, night and unoccupied	
Override possibility		•	•
Compressor anti short cycle		•	•
°C Range cooling / heating		10 to 32°C / 9 to 32°C	
Programmable, 7-day		•	•
Lockout codes		•	•
Outdoor air temperature		•	with YKlon
Sensor selection		•	•

X : Delivered as standard with the unit. X (1) : Standard but has to be ordered separately.
O : Optional. • : Function available.



Duct sensor	Ambiance sensor*	Room sensor
DS-1	AS-1	RS-1
S603786047	S603786049	S603786042

* To control up to 4 temperature sensors.
To be fitted with DPC-1 version 2.0 or superior.

